

To: Director and Laboratory Staff  
From: Survey and Appraisal Section, Cotton Processing Division  
Subject: SURVEY NOTES

## F A R M   S I T U A T I O N

### STRONG DEMAND CONTINUES FOR MOST FARM PRODUCTS BUT FARM PRICES DECLINE

High employment and increasing consumer incomes continue to support a strong demand for most farm products. Nevertheless, the general level of prices received by farmers has been declining, principally as a result of heavy marketings from the record 1948 crops and seasonally larger marketings of meat animals. Industrial production has recovered to the record peacetime high reached early this year, following a moderate decline caused by vacations. General commodity prices which started a rise last spring have leveled off.

The Demand and Price Situation, BAE, Nov. 1948, p. 1.

## C O T T O N   L I N T

### COTTON PRICE UP SLIGHTLY; FABRIC PRICES AND MARGINS STILL DECLINING

Middling 15/16" cotton is now slightly higher in price than viscose rayon staple on a delivered-at-mill basis, as a result of a slight rise during the last month. Cotton fabric prices and mill margins continued to decline from September to October. Many cotton fabric prices are now only slightly higher than, or in some cases below, the last O.P.A. price ceilings, although much higher than in 1945.

Table 1.- Prices of raw cotton, rayon staple, and cotton fabrics,  
and cotton mill margins, in cents.

	:Nov.18, : 1948	: Oct. : : 1948	: Sept. : : 1948	: Oct. : : 1947	: Sept. : 1946
Cotton Middling 15/16"	:	:	:	:	:
delivered at mills, lb.....	33.02	32.77	32.71	32.88	38.24
Rayon, viscose staple,	:	:	:	:	:
equivalent price 1/, lb.....	32.93	32.93	32.93	28.48	22.25
Cotton fabrics, average 17' constructions,:	:	:	:	:	:
Price for cloth from 1 lb. of cotton 2/,	-	68.32	72.48	92.32	63.53
Mill margin 3/.....	-	37.55	41.76	60.96	27.14
	:	:	:	:	:
Sheeting, 37" 4.00, yd. 4/.....	16.50	16.50	16.50	21.50	16.92
Osnaburg, 36" 2.35, yd. 4/.....	21.25	21.25	21.50	22.25	18.18
Printcloth, 38-1/2" 5.35, yd. 4/.....	15.50	15.75	16.00	20.50	14.58

- 1/ Cost to mill of same amount of usable fiber as supplied by one pound of cotton (rayon price x.89).
- 2/ Price of approximate quantity of cloth obtainable from a pound of cotton with adjustments for saleable wastes (Cotton Branch, PMA).
- 3/ Difference between cloth prices and prices (10-market average) of cotton assumed to be used in each kind of cloth (Cotton Branch, PMA).
- 4/ From Daily Mill Stock Reporter.



# PRICE OF 1-1/4 INCH STAPLE CONTINUES HIGH

Although cotton prices generally have declined substantially, the price of 1-1/4-inch staple is currently 55.07 cents, slightly higher than last June. Apparently the supply of this staple is quite short in relation to demand.

Table 2.- Prices for Middling cotton delivered to mills, 1948

Staple	:	June	:	November 18,	:	Change
	:	1948	:	1948	:	
	:	Cents	:	Cents	:	Cents
13/16	:	33.86	:	29.72	:	-4.14
15/16	:	38.53	:	33.02	:	-5.51
1-3/16	:	50.23	:	44.32	:	-5.91
1-1/4	:	54.98	:	55.07	:	+ .09

From reports of Cotton Branch, PMA.

## OCTOBER COTTON USAGE DECLINES; STOCKS UP

Cotton consumption dropped to 696,000 bales during October, which is less than in September and 131,000 bales lower than last year. Consumption in the August-October period, 1948, is at a rate of less than 8.7 million bales against 9.4 million bales in 1947-48 and a prewar average of slightly over 6 million. Stocks are high, the largest since April 1946.

Table 3.- Cotton consumption and stocks, and spindle hours in cotton mills

	:	October	:	September	:	August	:	October
	:	1948	:	1948	:	1948	:	1947
Consumption, bales.....	:	695,887	:	739,139	:	728,732	:	826,216
On hand, 1,000 bales.....	:	8,794	:	5,423	:	2,970	:	6,580
Active spindle hours, billions...	:	8.9	:	9.4	:	9.4	:	10.8
Spindle activity, percent of	:		:		:		:	
80-hour capacity 1/.....	:	120.0	:	121.0	:	119.6	:	127.0

1/ Includes activity on fibers other than cotton, totaling 0.6 to 0.7 billion spindle hours for each month shown.

From Census reports.

## GRADE OF THIS YEAR'S CROP LOWER BUT STAPLE CONSIDERABLY LONGER THAN LAST YEAR

Upland cotton ginned through October 31 this year (70 percent of indicated crop) averaged lower in grade but considerably longer in average length than cotton ginned to the same date a year ago. About 15 percent of this season's ginnings are Strict Middling and higher, compared with 31 percent last year. Staple lengths of 1-1/32" and longer accounted for 66 percent this year as compared with 53 percent last year, but long staple (1-1/8" and longer) accounted for only 2.5 percent, as compared with 1.3 percent a year ago.

U.S. Cotton Quality Reports, PMA, Nov. 8, 1948.

## RUST PLANS TO TURN OUT 1,000 COTTON PICKERS IN 1949

According to John Rust, his company plans to produce 1,000 New Universal Cotton Pickers next year. He is negotiating for factory space now, and will produce them, providing materials are available. This picker has no connection with the one which the Allis Chalmers Company is licensed to make under the basic Rust



patents, but is the actual model built to his own specifications after years of experimentation and constant improvement. The New Universal Rust Cotton Picker will cost about half the price of other pickers on the market. Mr. Rust now has one-row and two-row pickers at work harvesting cotton in the Mississippi Delta. According to the statement, "Cotton men in Memphis who viewed a sample of the cotton picked by the New Universal Rust Picker agreed that it was the cleanest mechanically picked cotton they had seen."

Cotton Trade Journal, Oct. 22, 1948, p.1.

#### COTTON PRODUCED MECHANICALLY AT A COST OF 10.8 CENTS PER POUND

According to data given us by Mississippi State College, cotton was produced mechanically at Stoneville, Miss., at a cost of 10.8 cents per pound in 1947, on land producing 458 pounds of lint per acre. This figure does not include the cost of management, land rent, and overhead.

#### MECHANICAL COTTON HARVESTING EXPANDS; ONLY 7 MAN-HOURS PER ACRE NEEDED TO PRODUCE COTTON ON SOME FARMS

International will produce 1,200 mechanical pickers this year, 1,500 in 1949. Deere & Co. produced 2,000 strippers this year retailing for \$1,952, while Oliver has produced 300 machines this year selling for \$1,250. The latter machine can harvest 20 to 30 acres a day it is reported. International is testing a new stripper at the Agricultural Experiment Station at Lubbock. A tractor-mounted stripper can average about a bale an hour compared to 7½ days for hand picking. Cost studies in West Texas, where more than 15% of the crop will be harvested by machine this year, show a cost of \$4.03 to \$6.30 per bale for the stripper, compared to \$38.30 to \$48.12 for hand picking. Some farms there report only 7 man-hours per acre are needed in the whole cotton production cycle. Last year more than 3,000 strippers were used around Lubbock.

Wall Street Journal, Oct. 18, 1948, p. 1.

#### WORLD COTTON PRODUCTION NEAR PREWAR LEVEL; U. S. PRODUCES OVER 50 PERCENT OF 1948 WORLD'S CROP

World cotton production has increased from about 21.1 million bales in 1945 to 29.8 million bales in 1948, or just slightly under the average for 1935-39. In 1948, the United States produced 51 percent of the world's crop, as compared to 41 percent in prewar years and 43 percent in 1945.

Table 4.- World cotton production by leading countries, 1935-39 and 1945-48  
(1,000 bales)

Countries	1935-39	1945	1947 1/	1948 1/
United States.....	13,149	9,015	11,857	15,079
India and Pakistan.....	5,348	3,529	3,525	3,550
Russia.....	3,430	1,700	2,600	2,600
China.....	2,855	1,820	2,136	2,200
Egypt.....	1,893	1,082	1,314	1,722
Brazil.....	1,956	1,350	1,200	1,400
Other countries.....	3,045	2,614	2,768	3,199
Total World Production....	31,676	21,110	25,400	29,750

1/ Preliminary.

Compiled from Foreign Crops and Markets, Office of Foreign Agricultural Relations, USDA, October 25, 1948, p. 321.

#### 10 MILLION BALE GOVERNMENT STOCK BY 1950 IS POSSIBILITY

Possibility of a Government owned stock of 10 million bales by 1950 is being discussed by market observers. It is estimated that between 3.5 and 6 million bales will go into the loan this year, with a total carryover of around 5.6 million bales expected for next August 1st. Under the Aiken bill, the 1949 crop will be supported at at least 90 percent of parity (this year it was 92½ percent) and while growers may "acceed" to quotas, the Secretary could not cut the acreage to less than 27 million as compared with only 23 million acres in cotton during this year's 15.1 million bale crop, so that a cotton crop as large or larger than this year's is a distinct possibility for 1949.

Journal of Commerce, Oct. 19, 1948, p. 1.



# COTTON TEXTILE INDUSTRY AND MACHINERY

## TEXTILES AND APPAREL MANUFACTURERS EARN AVERAGE OF 22.5% IN 1948

According to the monthly letter of the National City Bank of New York (November 1948), the net income of textile and apparel manufacturers fell from 27.0 to 24.2 millions of dollars during the third quarter. Even with this drop in income, the net income of the Industry averaged a 22.5% annual return for the first three quarters of 1948, as compared with 21.7% for a like period in 1947. The sales of all manufacturing corporations during the first nine months were approximately 22% more than the similar period in 1947. Part of this increase was in physical volume, and part resulted from advances in wholesale prices. This increase, it was stated, resulted from the industries working at virtually full capacity, and both capacity and efficiency have been increased this year by bringing newly-constructed and modernized plants into production.

Table 5.- Net income of leading corporations for the first nine months 1/  
(In Thousands of Dollars)

No. : of : Cos.:	Industrial Groups	Net income		% Annual return	
		nine months		nine months	
		1947	1948	1947	1948
24 :	Food products	\$115,968	\$107,000	20.1	16.8
27 :	Textiles and apparel	65,917	77,770	21.7	22.5
16 :	Pulp and paper products	62,261	65,354	26.9	23.0
16 :	Petroleum products	410,825	718,454	14.1	21.3
12 :	Autos and trucks	238,236	356,570	19.3	26.1
28 :	Machinery	38,813	42,842	16.0	16.2
343 :	Total manufacturing	1,993,222	2,609,684	16.1	18.7
26 :	Mining and quarrying	86,988 <sup>2/</sup>	124,794 <sup>2/</sup>	17.0	21.7
17 :	Trade (Retail and wholesale)	28,887	31,930	13.5	13.7

- 1/ Net income is shown as reported--After depreciation, interest, taxes, and other charges and reserves, but before dividends. Annual rate of return for nine months is computed on net worth, which includes book value of outstanding preferred and common stock and surplus account at beginning of each year.
- 2/ Before depletion charges in some cases.

The National City Bank of New York  
"Monthly Letter on Economic Conditions  
Government Finance," November 1948, p.125.

## MORE DATA GIVEN ON MACHINERY TO BE USED IN NEW SPRINGS COTTON MILLS

Colonel Elliot Springs has given further data on the machinery to be used in Springs Cotton Mills new Lancaster, S. C. plant. "Springs Mills built the new super long draft type spinning frame which will be placed in the plant" The frame will have a draft of 94. It employs 5 rolls and a belt and spins from a drawing sliver. "According to our tests the yarn is equivalent to short draft in quality." "The slashers to be used also have been designed at Springs Mills. One is now operating at the Gayle Mill, and we built it ourselves. The looms will be circular and we are having them built abroad." The new mill will have 40,000 spindles with the looms operating at 720 picks a minute. A year will be required to complete the building, and machine deliveries will start shortly thereafter.

Daily News Record, Oct. 20, 1948, p. 2.



## PEPPEREL CHANGES TO NEW LOOM BEAM SIZES

After experimenting with 48-inch warp beams Pepperel is installing 32-inch beams on many looms. They are nearly twice the size of usual beams, hold three times as much yarn, cut yarn waste losses 50%, and "tying-in" costs 66%.

Cotton Trade Journal, Oct. 22, 1948, p.3.

## LEVI STRAUS SEEKING SITE IN TEXAS FOR MANUFACTURE OF JEANS

Levi Straus at present is looking for a site for another branch plant in Texas, to manufacture jeans only.

Daily News Record, Oct. 11, 1948, p. 2.

## APPAREL INDUSTRY INCREASES RAPIDLY IN SOUTH CAROLINA

South Carolina is now third in production of men's cotton dress and sports shirts, following Pennsylvania and New York. South Carolina now has 100 garment plants against about 8 in 1940.

Manufactures Record, Sept. 1948, p. 31.

## COTTON PRODUCTS

### CALIFORNIA APPAREL MANUFACTURERS LIST NEEDED COTTON IMPROVEMENTS

According to a bulletin entitled "Cotton in the California Apparel Industry," California now ranks second only to New York City as a producer of women's, misses', and juniors' outerwear, and has the leadership position in sportswear for both men and women. Use of cotton fabrics is said to be gaining, but manufacturers suggest the need for the following:

1. New weaves and designs.- Cotton's competitors are producing new designs which are needed from style viewpoint.
2. Dyes.- Vat dyes not available in all colors, are relatively expensive, not as brilliant as certain other types.
3. Softness and drape.- Heavy cottons frequently are "boardy".
4. Hand.- Cotton needs more "touch" appeal.
5. Luster and slipperiness.- Needed in lining field "where cotton's quality advantages in other characteristics are recognized."
6. Bleaching.- Consumers like cotton that stays white.
7. Dry cleaning.- A satisfactory method would encourage use of cotton in hand finished, tailored garments.
8. Stability.- Light weight faded blue demins have a tendency to stretch. Also difficult to pre-shrink satisfactorily some of the heavier fabrics like work clothes denims.
9. Non-crushable finish.- No fully satisfactory method for protecting cotton from mussing has been developed. Would open new and large markets for light-weight fabrics.
10. Deodorant.- Cause heavy damage, to sheer fabrics particularly.

Suggestions also are given for cotton mills and industry merchandising.

Frank A. McCord and Raymond Steinbach, Jr. Cotton in the California Apparel Industry, Memphis, Tenn., National Cotton Council of America, June 1948.



#### BAGS: INCREASED DEMAND REPORTED.

According to the Textile Bag Manufacturers' Association, cotton bag demand has increased markedly in the past few months and further increases are anticipated in the immediate future because of the lower prices of cotton bag cloth over those of a year ago, and the increase in salvage values of the emptied cotton bags caused by recent promotion efforts. For the first eight months of this year, cotton bag makers are estimated to have consumed 387 million yards of cotton cloth - still well below the 477 million yards consumed during the same period last year. Of special interest is the introduction of dress print bags, which is used principally for 100-pound feed bags and bags used by the bakery trade. About 150 million yards should be used in 1948 for dress printed bags, which is a 50 percent increase since 1946. Present usage of printed flour bags in the bakery trade is now running over 4 million bags yearly.

Journal of Commerce, Oct. 25, 1948, p. 15 A.

#### BAGS: NO PRICE QUOTATIONS RECEIVED FOR NOVEMBER

No price quotations have been received as yet for November 1948. Refer to the previous issue of "Survey Notes" for latest data.

#### CREASE-RESISTANT COTTONS: RAPID DEVELOPMENT PREDICTED

Crease resistance is "the most original and the most important invention of this century in the textile world," according to Sir Kenneth Lee, chairman of the board of Tootal, Broadhurst & Lee, Ltd., Manchester. There is now available a full line of "Tebilized" crease-resistant cottons, in addition to rayons, linens, and mixtures sold under name of "Tootal Fabrics." "We look forward to a vast development of this improved process on cotton goods," Sir Kenneth said. Although the main patent has lapsed, Tootal, Broadhurst & Lee still own patents on improved methods developed during the interim.

Daily News Record, Oct. 25, 1948, p. 1.

#### SHEETS: RESIN INSTEAD OF STARCH BEING USED

Already being used by sheet concerns supplying the large mail-order chains, resins such as Monsanto Chemical Co.'s Merion are under consideration by top brand-name domestic firms. It is reported that the resin has advantages of imparting greater tensile strength to the finished sheet, longer life than the starch, which washes out after a few launderings, and costs the same as starch finishing.

Daily News Record, Nov. 4, 1948, p. 27.

#### SHIRTS: TWO PLASTIC BONDED SHIRT COLLARS DEVELOPED

At present shirt collars are made by two methods: (1) cotton fabric coated with cellulose acetate is fused to two outside cloth layers with heat, and (2) fabric liner is two-thirds cotton and one-third acetate yarns, on which an alcohol solvent dissolves acetate to form bond when bonded to collar with heat and steam. A new liner consists of a plastic film made from a special formulation of polyvinyl chloride resin, which is fused between the two outside layers under steam pressure. The new liner is said to be 10 cents to 15 cents cheaper per dozen shirts, and to minimize wrinkling since once bonded the collar is an integral unit. It has withstood 35 washings without shrinkage.

Modern Plastics, Aug. 1948, p. 93.



# TIRE FABRIC PRICES UNCHANGED FROM LAST MONTH

Tire fabric prices were the same as last month.

Table 6.- Prices of cotton and rayon tire fabrics,  
November 1 and October 1, 1948

Fabric	Cord	Fabric weight per sq. yd.	Price per pound		Price per sq. yd.	
			Nov. 1	Oct. 1	Nov. 1	Oct. 1
			Cents	Cents	Cents	Cents
Passenger car tires						
Cotton fabric.....	12/4/2	.86	72	72	62	62
Rayon fabric.....	1650/2	.67	66.5	66.5	45	45
Truck tires						
Cotton fabric.....	12/4/2	.86	1/	1/	1/	1/
Rayon fabric.....	1100/2	.54	69	69	37	37
Rayon fabric.....	2200/2	.81	65	65	53	53

1/No quotation received.

Based on reports from independent rubber companies for fabric constructions most heavily used.

## TIRE FABRIC: AT WHAT PRICE SHOULD COTTON SELL TO BE COMPETITIVE WITH RAYON IN TIRE FABRIC

No definite answer can be given to this question because of differences in the constructions of fabrics used by the various rubber companies, etc. According to data from several of these companies, only 78 percent to 85 percent as much rayon fabric is used per passenger car tire as cotton fabric. Supposing 80 percent as a basis, cotton tire fabric should sell for 53 cents a pound to be as cheap as rayon tire fabric selling at its present price of 66.5 cents per pound (1650/2 ply). The mill margin on cotton tire fabric at present is about 31 cents. To sell cotton tire fabric at 53 cents per pound, with this margin, the cotton cost would need to be 18 cents per pound for Middling 1-inch cotton delivered at the mill, or 16 cents on a Middling 15/16-inch 10-market basis.

Present mill margins are much larger than prewar. Assuming the mill margin could be cut from 31 cents down to 25 cents, as we return to a buyers' market, the price at which cotton would be competitive with rayon for passenger car tires would be 21 cents on a Middling 15/16-inch 10-market basis (instead of the 16 cents above). Cotton would need to be priced lower than this to have a competitive advantage. These prices are only approximate and would vary somewhat with a number of factors.

## TIRE T: BETTER DESIGN SAID TO BE NEEDED FOR LOW PRESSURE TIRES

Motorists are complaining about the new softer-riding tires, claiming they wear smooth after 18,000 to 24,000 miles, sometimes as little as 12,000, instead of 30,000 to 35,000 miles on conventional tires. Rubber companies are confident however, the new tires will improve in performance with improvements in design and as the public learns how to take care of them. Low pressure tires were introduced in the replacement market by U. S. Rubber in August 1946; in original equipment by Goodyear on all Chrysler Corp. cars in 1948. Pricewise the new tires are a little higher than the old ones--the 6.70-by-15 lists at about \$22.80 including tax compared with \$20.25 for the 6.00-by-16 with tube and tax. The sales executive said "we always hear the short-mileage complaints first. Satisfied customers don't usually come around to pat you on the back



as quickly as this." Too, road tests showed a mileage gain of 3% for the new type casings, according to this executive. Motorists were said to be buying new tires in spite of gripes about mileage (they are said to make biggest difference in riding on small cars) but the spokesman for one tire company said they were not inspired by tire engineers and they will be disappearing from the highways within the next few years "because they reduce gasoline mileage and wear out quicker."

Wall Street Journal, Oct. 12, 1948, p. 1.

#### SEWING THREADS IN AWNINGS DEFECTIVE

According to Sheldon C. Grebe, Thomas Awning Co., Miami, in that city, despite the use of best grade and highest priced thread obtainable, there are numbers of instances where awnings under normal wear have required complete resewing twice within 12 months, due to thread deterioration. Such high cost of maintenance is switching customers away from canvas awnings.

Daily News Record, Oct. 21, 1948, p. 28.

(See also statement about Orlon thread under "Competitive Products")

#### THREAD: NEW NON-TWIST THREAD FOR SYNTHETIC FIBERS, COTTON AND GLASS

What is claimed to be the first non-twisted thread was announced by the Belding Hemingway Corticelli Co. The thread, known as "Monocord" is neither monofilament nor coated or resin treated type. There are no spirals or ridges along the sides caused by twisting. The first commercial thread known as "Nymo" was made from an untwisted bundle of nylon fibers welded together to form an untwisted thread of one cord with all the properties of the original fiber. The monocord process has been used successfully not only with nylon, but also with cotton, rayon, other synthetics and even glass. "Nymo" is said to be strong because it is not weakened by twisting, has plasticity, resilience and elasticity, is largely mildew-, water and chemical resistant. The thread is smooth, which facilitates its passage through both industrial and home sewing machines, has high sewability, and is excellent in factories because it does not snarl or catch. The pilot plant, located at Putnam, Conn., anticipates production for industrial and home use in the near future. The thread will at first be available in white and a limited number of colors for use in canvas goods, luggage, and glove industries. The practicability of weaving or knitting has not been explored up to the present time.

Wall Street Journal, Nov. 6, 1948, p. 8.

#### WORK CLOTHING: INDUSTRIAL LAUNDRIES BUSINESS BOOMING

Industrial laundries, which wash factory workers overalls, filling station attendants' uniforms, etc., are booming, according to the Wall Street Journal. With business now approaching \$200 million annually. They rent coveralls for 20 to 25% more than straight laundry fees on basis of 2 clean garments per worker per week, the coveralls lasting about 9 months. As many as 96,000 to 120,000 per year are ordered by some laundries. Rental of towels to industries was boosted by stoppage of foreign rag shipments during war.

Wall Street Journal, Oct. 30, 1948, p. 2.

#### COMPETITIVE PRODUCTS

ACETATE-COTTON USED IN CARPETS; ACETATE CLAIMED TO SOIL LESS AND TO BE MORE RESILIENT THAN COTTON

Acetate staple/cotton combination rugs marketed by Lawrence Products Co. are reported as receiving an enthusiastic reception. Most popular number is a



cut pile shag which is thought to have appeal on account of its sheen and the fact that it "lints" considerably less than cotton when washed. According to Celanese Corp., acetate staple has 26% less affinity for soilage by dust and dirt than cotton and 7% more affinity to soilage than wool. Further, Celanese staple dries 40% faster than cotton inasmuch as the fiber does not absorb water like cotton. It is also 37% more resilient than cotton and 7% less resilient than carpet wool.

Daily News Record, Sept. 22, 1948, p.1.

#### BULK HANDLING: LIQUID SUGAR, REPLACING BAGS, MAKES PROGRESS

"Slow to get a start in food processing, liquid sugar has finally begun to hit its stride since the war. Refined Syrups and Sugars, Inc., which supplies Kroger (which just started using liquid sugar in its food plants in Cincinnati) now employs some 600 workers around the clock, operates 100 rail tank cars, owns 21 tank trucks and a barge. Today, some 350,000 tons (about 5% of all sugar refined) is converted into liquid sugar; the company turning out about half. Refined Syrups ships from Yonkers, N. Y. to such well-known customers as Borden, Pepsi-Cola, and General Foods for use in beverages, candy, ice cream, preserves, fountain syrups, etc.. Liquid sugar is said to (1) cut labor costs and storage space, (2) to be clean because always under cover, (3) and can be inverted for specific uses. A major disadvantage is fact that it is one-third water, with freight disadvantage pricing it out of the long haul market.

Business Week, Oct. 23, 1948, p. 94.

#### NYLON CITRUS PICKING BAGS HIGHLY SATISFACTORY IN CALIFORNIA TESTS

Experiments conducted in the use of nylon bags for citrus fruit pickers indicates increased use of this material due to its strength, durability and lightness of weight. The bags are said to weigh from 22 to 25 ounces, which is one-third the weight of similar bags made of canvas. Nylon bags hold approximately 85 pounds of oranges, lemons or grapefruit, and allegedly outlast and drape over the picker's shoulder better than canvas bags. Bags of 14-16-18 oz. nylon cost no more, take less time to make, require less reinforcing with rivets and leather, and are more easily patched when damaged than canvas bags. They also do not deteriorate from mildew.

Agricultural News Letter (DuPont)  
Vol. 16, No. 6, Nov. - Dec., 1948

#### NYLON SEEN AS IDEAL IN ENGLAND FROM FOREIGN EXCHANGE VIEWPOINT

England is singularly short of raw materials, and most exports need imports first. The real value of an export is the difference between the value of the export and the cost of the imported raw material. Cotton goods, for instance, are worth £75 to use for every £100 worth exported. Woolen exports are worth about £60 in every £100 to England. But most rayons are made from cheap imported material and turned into something valuable. Each £100 of viscose rayon piece goods is worth about £95 to England when exported. Nylon needs no imports; it is worth its full selling price to England.

Journal of Textile Institute, 37, Dec. 1946, p. 564

#### NYLON'S PLACE IN LINGERIE MARKET

According to Burlington Mills, nylon will not replace rayon in the lingerie field for two reasons. Rayon is much cheaper and will sell better in the popular priced field, and rayon is much more available than nylon, which is allotted in small quantities to the lingerie manufacturers. It is probable that nylon



will be used in the better priced styles, but this will further entrench rayons in the popular price field.

Lingerie Merchandising, Sept. 1948

#### ORLON: DUPONT TO BUILD NEW PLANT IN SOUTH CAROLINA

DuPont has announced plan to construct a multimillion dollar plant at Camden, S. C., starting in March of next year, completing its construction in about 18 months, for the production of Orlon (commonly known as Fiber "A"). Plant and utility building will cover 20 acres on a 800-acre site, and it will employ about 500 people when in production. It will be built by DuPont's construction department. At the present time Orlon is produced on a pilot plant scale in the acetate division of the rayon department at Waynesboro, Va., at the rate of 1000 pounds weekly. Orlon possesses resistance to deterioration by sunlight and is expected to make a place for itself in awnings, automobile tops, and other outdoor uses. Resistance to chemical attack, particularly by acids, and ability to withstand high temperatures is said to make it suitable for many industrial applications.

Daily News Record, Oct. 22, 1948, p. 24.

#### ORLON: NEW THREAD SEEN HALTING SEAM FAILURES IN AWNINGS

The American Thread Co. is introducing a new thread called "Orlon" made of DuPont's Orlon yarn, which it is predicted will go a long way toward solving the problem of seam deterioration in awnings. According to Curtis E. Bowne, general manager of the industrial sales division, American Thread Company, Orlon sewing thread is being made in two sizes--Ticket Size 12/4, and Ticket Size 24, which is approximately the same size as cotton thread Ticket Size 24/4. Size for size, it has strength comparable to or better than the best grades of cotton threads. In an outdoor exposure test conducted in Wilmington, Del., involving Orlon, silk, nylon, linen, cotton, and viscose rayon, Orlon retained 77 percent of its strength after all of the other fibers completely failed.

Some conception of the resistance of Orlon thread to sulphurous fumes can be gained from the fact that 60 percent sulphuric acid did not cause the fiber to deteriorate on exposure for 60 days at 25 degrees centigrade. Orlon yarn is not deteriorated by common solvents, oils, or greases. Orlon threads are not attacked by mildew, nor will they support insect life. "From all of the experiments to date, Orlon appears to be the perfect fiber from which to make thread for use in tents, awnings, tarpaulins, and other outdoor products." "At present we have sufficient poundage of Orlon thread for trial purposes. It has been service-tested with 'most satisfactory' reports." Mr. Bowne said ultra violet rays are most important cause for seam failures in awnings, but poor stitching, smoke residues, and mildew also are important. "If and when new chemicals are developed which will produce cotton threads capable of withstanding ultra violet rays or mildew for longer periods of time, such threads will be developed and offered to your industry."

Daily News Record, Oct. 20, 1948, p.30.

#### PAPER INDUSTRY SAID TO NEAR END OF POSTWAR BOOM; PER CAPITA CONSUMPTION NOW 300 POUNDS

According to the Wall Street Journal, the paper industry is nearing the end of its postwar boom. Arch Carswill, vice president of St. Regis' Sales Subsidiary, says "Multiwall bag sales effort no longer deals with a scarce commodity." Per capita consumption of paper is now 300 pounds per year, compared to 250 pounds prewar.

Wall Street Journal, Nov. 15, 1948, p.1.



## RAMIE OFFERED BY CHICAGO FIRM

"Ramilon, a perfected ramie fiber offered in the form of degummed filasse either bleached or unbleached," is advertised by Pan American Commerce, Inc., 205 Wacker Drive, Chicago 6, Illinois. "Inquiries are also invited from those interested in Ramilon tops, slivers, rovings, yarn, and fabrics.

Journal of Commerce, Oct. 13, 1948.

## RAYON: AMERICAN VISCOSE ANNOUNCES NEW CONTINUOUS PROCESS

American Viscose Corp. has announced development of a new process which shortens the time from spinnerette to the dried yarn to a few seconds, compared with hours by the pot spinning method and with minutes in other continuous processes. The machine is said to change the entire economic basis of rayon production. It does not resemble any previous machine, continuous or otherwise; is faster and more efficient than older machines for continuous methods; and will have a 20-million pound annual capacity. The new process which is called "Filamatic" will not replace the present pot-spinning, but will be additional spinning capacity.

Yarns spun by "Filamatic" continuous process are said to exhibit a high degree of uniformity both in physical characteristics and dyeing qualities. Fine and medium yarn sizes can be produced by the machine as well as lusters, twist ratios and package put-ups required by the trade. Yarns produced to date were reported to show physical characteristics similar to regular standard textile yarns, with residual shrinkage of between 3% and 3.5%. They are suitable for plying and twisting, and are considered better for flat goods than pot-spun yarns. No outside help was received in development of the machine. It was developed by the mechanical division at the Marcus Hook, Pa., plant with the help of the chemical research department. The plan for a continuous process machine took its ultimate direction in 1943 and development of the present model was accomplished in one year, being completed last month.

Assuming a plateau in building and labor costs, it was maintained that the new machine, because of its high speed, would bring down costs of viscose rayon filament yarn. The speed was described as so great that the machine could not be laced (started) by hand and that a new technique had to be developed. Use of this machine was not expected to reduce total employment by the company. The new process involves chemical and mechanical revisions compared with other processes, but no basic change in chemistry of the process. Production of these yarns should release pot-spun filament yarns for plying and twisting. A survey of available facilities at Marcus Hook and Lewistown, Pa., Roanoke and Front Royal, Va., and Parkersburg, W. Va., is in progress to decide upon installation on new machines at one or more of these units.

Daily News Record, Nov. 10, 1948, p. 1.

## RAYON: FIRST BRITISH RAYON MACHINERY TO BE INSTALLED IN POLAND

Poland has made a contract to purchase machinery and equipment for a Nelson continuous rayon plant, with a capacity of 2-1/2 tons per day, at a cost of £250,000. This will be the first installation of British rayon machinery in Poland.

Daily News Record, Oct. 25, 1948, p. 1.



## RAYON FABRIC PRICES DECLINING

"The buyer's market which crept up on cotton last spring and on wool earlier this fall has now quietly come to rayon fabrics." Dressmakers who were buying rayon fabrics 4 to 5 months in advance, now give only short term orders for delivery in two or three weeks. "Garment people aren't shelling out 50% to 100% price premiums" in resale markets as they were. J. P. Stevens, however, said 10 to 15 percent of filament rayon fabric is still in short supply. Big yarn makers are still allocating their product. Jobbers now get only \$1 per pound as against over \$2 earlier in the year for 150 denier yarn, compared with 77 cents charged by producers.

Wall Street Journal, Nov. 5, 1947, p.1.

## RAYON PRODUCTION PREDICTED FOR 1955

According to a forecast made by S. E. Seaman, of Seaman and Seaman Co., New York City, world rayon production will be about 4.5 billion pounds annually by 1955, or a 125 percent increase over 1947 production. Rayon production in the United States is expected to expand to 1.5 billion pounds by the same year, indicating a 50 percent jump in production over the present total.

## SYNTHETICS: CANNON MILLS EXPANDS DEVELOPMENT WORK

George Groh, with DuPont for 20 years, will head up all synthetic development work on synthetics at Cannon Mills beginning October 13th. "This appointment may portend large scale expansion by the large cotton goods manufacturer," which at present uses synthetics only in a few products such as blended rayon and cotton bedspreads and decorative fabrics, and nylon hosiery.

Journal of Commerce, Oct. 13, 1948, p.14.

## SYNTHETICS DEVELOPED IN JAPAN

"It is interesting to note, too, that one of the Japanese rayon companies, in May, began commercial production of a new polyvinyl fibre for fabrics, fishing lines, and the like. Three other companies are preparing to produce this fibre, whilst one has produced a polyamide resin named 'Anilan', and still another is developing a new casein fibre. That shows that the Japanese rayon industrialist and rayon scientist are by no means asleep and these developments are significant in view of the clamour—reported in these columns—which is going on for development of the rayon staple industry."

Silk Journal & Rayon World, Sept. 1948, p. 33.

## SYNTHETICS USE IN ROPE DISCUSSED

Rayon, nylon, and Saran are being used in ropes by the Columbian Rope Company. High tenacity rayon carrier ropes are made in standard sizes of 3/8" and 1/2" diameter, which are used as carrier ropes on paper making machinery. Nylon ropes are pre-set by a patent stabilizing process and it holds its lay. Nylon is being used in marine and safety ropes and cowboy lariats. At present, Saran ropes are being used where chemical action would shorten the normal life of a natural rope. It is made in diameters of 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", and 3/4". Saran rope is resistant to water, chemicals, solvents, acids and common alkalis, and abrasion. Its tensile strength is 10 to 30 percent less than manila rope and is approximately 15 percent heavier.

Fibres, Fabrics & Cordage, Sept. 1948.



## WOOL OUTPUT FOR 1949 TO BE DOWN

Domestic production of shorn wool in 1949 probably will be somewhat less than the 237 million pounds now estimated for 1948. The 1949 clip may be about 225 million pounds, which would be the smallest production on record. Prices of wool in domestic and foreign markets probably will remain at a relatively high level at least through 1949 because the Government has assured the wool growers a support price of 42.3 cents per pound, grease basis. The Department of Agriculture also states that mill consumption may decline in 1949, while the use of foreign apparel wool may increase slightly.

The Wool Situation, BAE, Sept. 1948.

## WOOL: SCOURING AND SPINNING WOOL MILL IN WYOMING BELIEVED LIKELY.

According to A. J. Rosenstein of Unionville, Conn., president of the Redstone Textile Co., establishment of a 2 million dollar wool scouring, combing, and spinning mill in Wyoming appears likely. The plant would handle about 5 million pounds of Wyoming's annual 20 million-pound production and would employ 400 to 500 persons. The Redstone Textile Company would provide the necessary machinery as well as the sale of the plant's production, putting up \$484,500 with the remainder provided in Wyoming. Mr. Rosenstein stated Wyoming was ideal because it is at the source of the raw material, eliminating high freight rates, and has access to both Eastern and Western markets.

Daily News Record, Nov. 4, 1948, p. 6.

## TEXTILE RESEARCH & EDUCATION

### DUPONT HAS SPENT 30 MILLION ON RAYON RESEARCH

DuPont has spent more than \$30 million on rayon research since the industry's beginning, according to Henry B. duPont, vice president.

Daily News Record, Oct. 18, 1948, p.22.

## COTTONSEED & PEANUTS

### 1948 PEANUT PRODUCTION UP

According to the November 1 estimate of the Bureau of Agricultural Economics, peanut production this year will be 2,288 thousand pounds as compared with 2,187 thousand pounds in 1947, and an average of 1,751 thousand pounds during 1937-46.

Crop Production, BAE, Nov. 1, 1948, p.1.

## VEGETABLE OIL PRICES ADVANCE SLIGHTLY; ALL MEAL PRICES HIGHER

Generally most vegetable oil prices increased over the previous month, with price increases ranging from 1 to 2 cents per pound. All meal prices advanced \$6 to \$13 per ton over the previous month, but were still somewhat below the peak prices for the first half of 1948.



Table 7.- Prices of vegetable oils and meals

	November 1948	October 1948	September 1948	November 1947	September 1946
	Cents per pound				
OILS 1/	Nov. 15	Oct. 11			
Cottonseed oil.....	19.0	18.0	22.5	26.6	12.5
Peanut oil.....	21.0	23.5	24.5	27.8	13.0
Soybean oil.....	19.0	17.8	22.5	25.6	11.8
Corn oil.....	22.5	21.5	25.0	26.9	12.8
Coconut oil 2/.....	22.0	27.0	23.0	26.0	11.1
Linseed oil 3/.....	29.2	29.5	29.0	32.7	17.8
Tung oil 4/.....	24.5	22.5	22.3	27.8	39.0
	Dollars per ton				
MEALS 5/	Nov. 13				
Cottonseed meal 6/...	74.00	64.75	62.80	90.80	62.75
Peanut meal 7/.....	68.00	60.05	66.30	88.15	67.25
Soybean meal 8/.....	80.00	66.80	81.50	92.90	66.00
Coconut meal 9/.....	97.00	91.25	83.80	82.40	59.70
Linseed meal 10/.....	71.00	64.90	64.50	88.75	59.25

1/ Crude, tanks, f.o.b. mills except noted. From Oil Paint and Drug Reporter (daily quotations) and from Fats and Oils Situation, BAE (monthly quotations).

2/ Crude, tanks, Pacific Coast.

3/ Raw, drums, carlots, N.Y.

4/ Drums, carlots, N.Y.

5/ Bagged carlots, as given in Feedstuffs (daily quotations) and Feed Situation BAE (monthly quotations).

6/ 41 percent protein, Memphis.

10/ 32 percent protein, Minneapolis, prior to May 1947; 34 percent protein after that date.

7/ 45 percent protein, S. E. Mills.

8/ 41 percent protein, Chicago.

9/ 19 percent protein, Los Angeles.

# WORLD PRODUCTION OF COTTONSEED INCREASING RAPIDLY: STILL BELOW PREWAR

World production of cottonseed was 13.7 million tons in 1948, or slightly below prewar production of 15.3 million tons. Quantitatively the United States production was higher than prewar. Percentagewise the United States' share of the world production has increased from 36 percent during 1935-39 to 44 percent during 1948.

Table 8.- World production of cottonseed by leading countries, 1935-39, 1945-48

	(1000 short tons)				
Countries	Average 1935-39	1945	1947 1/	1948 1/	
United States.....	5,554	3,664	4,681	6,091	
India and Pakistan.....	2,984	1,911	1,928	1,936	
Russia.....	1,640	815	1,250	1,250	
China.....	1,593	1,016	1,196	1,232	
Egypt.....	1,007	576	702	920	
Brazil.....	935	645	576	612	
Other countries.....	1,572	1,343	1,422	1,699	
Total.....	15,285	9,970	11,755	13,740	
U.S. as percentage of world: production.....	36.3%	36.8%	39.8%	44.3%	

1/ Preliminary

Compiled from Foreign Crops and Markets, USDA, November 8, 1948, p. 362.



# LINTERS AND CELLULOSE

## LINTERS PULP PRICE DROPS FURTHER; WOOD PULP UNCHANGED

The price of purified linters was down to 9.35 cents per pound in October, while wood pulp prices remained unchanged. Purified linters were .15 cents per pound lower than acetate grade wood pulp in October 1948, as compared to 8.26 cents higher in 1947 and 3.35 cents higher in 1946. It was reported that there would be some increase in use of purified linters because of the low price. However, most consumers are anxious to maintain their position with wood pulp suppliers, fearing that the present low price of purified linters may be only a one-year situation.

Table 9.- Average annual price of purified linters and dissolving wood pulp, 1946-47, and monthly quotations, May-- October 1948

(Cents per pound)				
	Purified linters <sup>1/</sup>	Standard viscose grade	Wood pulp <sup>2/</sup> High-tenacity viscose grade	Acetate & cupra grade
1946.....	9.50	5.60	5.85	6.15
1947.....	16.30	7.03	7.44	8.04
1948, May.....	12.60	7.85	8.35	9.10
1948, June.....	12.60	7.85	8.35	9.10
1948, July.....	11.65	8.03	8.53	9.30
1948, August.....	10.25	8.20	8.70	9.50
1948, September.....	9.60	8.20	8.70	9.50
1948, October.....	9.35	8.20	8.70	9.50

<sup>1/</sup> Weighted averages, 1946-47. On 7 percent moisture basis, f.o.b. pulp plant. Average freight to users is 0.5 cent per pound. Prices supplied by a producer.

<sup>2/</sup> Average of average monthly prices, 1946-47. Compiled from Rayon Organon and from letters to us from producer. Wood pulp prices are 10 percent moisture basis, f.o.b., domestic producing mill, full freight, and 3% transportation tax allowed, Dec. 1, 1947. on; freight equalized with that Atlantic or Gulf port carrying lowest backhaul rate to destination plus 3% of backhaul charges, prior to December 1.

## LINTERS PRODUCTION HIGHER THAN PRIOR YEARS

During 1947 cotton linters production was somewhat higher than during other postwar years, but only 150 thousand bales more than prewar years. Of the 1,282 thousand bales produced in 1947; 887 thousand bales were chemical grade linters (Grades 5-7) and 394 thousand bales were felting grade linters (Grades 1-4), as compared to 657 thousand bales of chemical grade linters and 475 thousand bales of felting grade linters during 1935-39. The production of Grade 7 linters jumped tremendously in 1947 over prior years.



Table 10.- U.S. cotton linters production by grades, crop years 1935-47 <sup>1/</sup>  
(1,000 bales)

	Average 1935-1939	Average 1940-1944	1945	1946	1947
Total.....	1,132	1,235	989	992	1,282
Grade					
1.....	28	23	17	16	34
2.....	155	92	101	105	163
3.....	156	106	129	175	141
4.....	136	78	111	157	57
5.....	192	288	187	92	78
6.....	425	591	358	404	311
7.....	40	57	86	43	498

<sup>1/</sup> Weekly Cotton Linters Review, PMA, August 20, 1948

#### DISSOLVING WOOD PULP DATA GIVEN

The supply of dissolving wood pulp continues ahead of a year ago because of slightly higher production and imports.

Table 11.- Dissolving wood pulp: Production, exports, imports,  
and quantities made available for consumption, U. S.,  
1939-48

	(Tons)				Available for
	Domestic production <sup>1/</sup>	Imports <sup>2/</sup>	Exports <sup>2/</sup>		domestic con- sumption <sup>3/</sup>
1939.....	<u>4/</u>	88,052	48,232		<u>4/</u>
1945.....	<u>4/</u>	143,802	13,033		<u>4/</u>
1946.....	<u>4/</u>	202,192	8,491		<u>4/</u>
1947.....	324,927	248,606	10,389		563,144
1947, Jan. - Aug.....	215,735	159,208	7,381		367,562
1948, Jan. - Aug.....	239,136	164,874	12,011		392,199
1947, August.....	25,359	23,411	880		47,890
1948, August.....	29,949	23,571	1,531		52,189
1948, September.....	29,665	24,164	<u>4/</u>		<u>4/</u>

<sup>1/</sup> Sulphite, bleached, dissolving grades. From Facts for Industry, Pulp and Paper Manufactures, Bureau of the Census.

<sup>2/</sup> Sulphite, bleached, rayon and special chemical grades. Data from foreign commerce statistics of the United States, Bureau of the Census.

<sup>3/</sup> Production plus imports less exports.

<sup>4/</sup> No data.

#### NEW PROCESS TO MAKE RAYON PULP FROM HARDWOODS

The International Paper Co. will build a rayon pulp mill in the south to employ a new <sup>Kraft</sup> process for producing dissolving wood pulp from hardwoods. The mill will have a yearly capacity of 100,000 tons and will increase by approximately 16% the present estimated North American output of rayon pulp. This increase will be sufficient to meet increased demand for raw material from new rayon capacity, existing and authorized. This process is significant because it permits for the



first time in history the manufacture of rayon pulps from hardwoods instead of softwoods. The new process produces pulp of the highest grades for manufacturing rayon yarns, cellophane plastics and allied products, being especially adapted for production of rayon specialties such as high tenacity yarn used in tire cord, mechanical rubber goods, and high tenacity textile yarns.

Wall Street Journal, Nov. 1, 1948, p.8.

#### KINSLEY USES WHEAT STRAW FOR PAPER

The Kinsley Chemical Co. of Cleveland, Ohio has announced development of a process for making wheat straw into newsprint, wrapping grades, construction sheets, container board, box board, and paper board. Mixtures of wheat straw and wood were carried out experimentally at NRRL; this is the first full scale production of newsprint entirely from straw. About 21 million tons of paper is produced annually in the U.S., mostly from wood pulp; it takes about two tons of straw to make one ton of the finished product. The straw-pulp can be marketed for \$65.00 to \$72.00 per ton as compared with a current price of \$100.00 per ton or more for wood pulp. Wheat straw was chosen because of its large yield and ample supply in normal times. It is possible to secure yields of fibre varying from 18% for ramie, to 60% (unbleached) in the case of soybean straw, wheat straw, and cotton stalks.

Chemurgic Digest, Oct. 1948, p. 4.

#### JAPAN SAID TO HAVE AMPLE CELLULOSE FOR RAYON AND OTHER NEEDS

Japan is one of the most completely forested of the civilized nations, rivaling even Finland and Sweden. She, therefore, has ample wood for paper production and for the production of chemical cellulose for rayon and protective coatings. No cotton is produced. But when Russia re-acquired Karafuto after the surrender, Japan lost a large part of her developed pulpwood supply and of her pulp and paper producing capacity. Paper production is about 25% of what it was before the surrender. The Japanese chemical pulp plants are not able to produce chemical pulp with an alpha cellulose content over 88%, and with imports of higher grade wood pulp greatly curtailed and no cotton linters for blending they can produce only low grade viscose rayon. Before the war rayon production was one of the principal industries, but the war lords required them to scrap their machinery for munitions and only now is it being restored. The Japanese are not familiar with the continuous process, and being unable to get the needed information, they are enlarging the capacity that remained at the end of the war with equipment based on obsolete practice. They are also handicapped for lack of chlorine, caustic soda, and cornstarch.

Campbell Osborn in Chem. & Eng. News, Oct. 11, 1948, p.3019.

#### INDIAN MILL TO USE BAMBOO AS MATERIAL FOR NEWSPRINT

An American engineering firm has been engaged by the National Newsprint and Paper Mills, Ltd., of India to construct a \$5,000,000 newsprint mill which will, for the first time, commercially process newsprint from the cellulose of bamboo, salai and "paper mulberry" trees. The mill will have a capacity of 100 tons a day, which will cost only a third of the \$220-a-ton average now paid in India for imported newsprint. The plant is expected to be in production next year.

Chemurgic Digest, Oct. 1948, p. 18.



1. The first part of the report deals with the general situation of the country and the progress of the work during the year.

2. The second part of the report deals with the results of the work during the year and the progress of the work during the year.

3. The third part of the report deals with the results of the work during the year and the progress of the work during the year.

4. The fourth part of the report deals with the results of the work during the year and the progress of the work during the year.